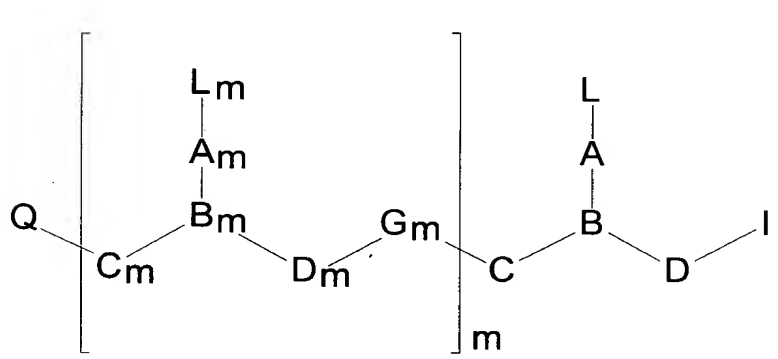
This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-52 (canceled)

53. (currently amended) A peptide nucleic acid of the formula:



wherein:

m is an integer from 1 to about 50;

L and L_m independently are naturally occurring nucleobases;

C and C_m are $(CR^6R^7)_y$; wherein:

R^6 and R^7 are hydrogen;

R^3 is hydrogen;

D and D_m are $(CR^6R^7)_z$;

y is 1 and z is 2;

G_m is $-NR^3CO-$ in either orientation;

each pair of A-A_m and B-B_m are $>N-C(O)-CH_2-$;

I is $-NR^8R^9$ or $-NR^{10}C(O)R^{11}$; wherein:

R^8, R^9, R^{10} and R^{11} independently are hydrogen, alkyl, an amino protecting group, a reporter ligand, an intercalator, a chelator, a peptide, a protein, a carbohydrate, a lipid, a steroid, a nucleoside, a nucleotide, a nucleotide diphosphate, a nucleotide triphosphate, an oligonucleotide, an oligonucleoside, a soluble polymer, a non-soluble polymer, a reporter enzyme, a reporter molecule, a terpene, a phospholipid, a cell receptor binding molecule, a water soluble vitamin, a lipid

soluble vitamin, an RNA/DNA cleaving complex, a porphyrin, or a polymeric compound selected from polymeric amines, polymeric glycols and polyethers; and Q is $-CO_2H$, $-CO_2R^8$, ~~$-CO_2R^9$,~~ or $-CONR^8R^9$.

54-62 (canceled)

63. (previously presented). The peptide nucleic acid of claim 53 wherein R^8, R^9, R^{10} and R^{11} independently are hydrogen, alkyl, a peptide, a protein, a carbohydrate, a nucleoside, a nucleotide, a nucleotide diphosphate, a nucleotide triphosphate, an oligonucleotide, or an oligonucleoside.

64. (previously presented). The peptide nucleic acid of claim 53 wherein R^8, R^9, R^{10} and R^{11} independently are a nucleoside, a nucleotide, an oligonucleotide, or an oligonucleoside.